


STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING							FORM 3 AMENDED REPORT <input type="checkbox"/>						
APPLICATION FOR PERMIT TO DRILL							1. WELL NAME and NUMBER 16-7D-46 BTR						
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>							3. FIELD OR WILDCAT ALTAMONT						
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO							5. UNIT or COMMUNITIZATION AGREEMENT NAME						
6. NAME OF OPERATOR BILL BARRETT CORP							7. OPERATOR PHONE 303 312-8164						
8. ADDRESS OF OPERATOR 1099 18th Street Ste 2300, Denver, CO, 80202							9. OPERATOR E-MAIL BHilgers@billbarrettcorp.com						
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) 1420H625671			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>				12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>						
13. NAME OF SURFACE OWNER (if box 12 = 'fee')							14. SURFACE OWNER PHONE (if box 12 = 'fee')						
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')							16. SURFACE OWNER E-MAIL (if box 12 = 'fee')						
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Uintah and Ouray			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>				19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>						
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN	
LOCATION AT SURFACE		857 FSL 1720 FEL		SWSE		7		4.0 S		6.0 W		U	
Top of Uppermost Producing Zone		799 FSL 809 FEL		SWSE		7		4.0 S		6.0 W		U	
At Total Depth		810 FSL 810 FEL		SESE		7		4.0 S		6.0 W		U	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 810			23. NUMBER OF ACRES IN DRILLING UNIT 640							
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2279			26. PROPOSED DEPTH MD: 7517 TVD: 7362							
27. ELEVATION - GROUND LEVEL 5797			28. BOND NUMBER LPM8874725			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-180							
Hole, Casing, and Cement Information													
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement		Sacks	Yield	Weight		
Cond	26	16	0 - 80	65.0	Unknown	8.8	No Used		0	0.0	0.0		
Surf	12.25	9.625	0 - 750	36.0	J-55 ST&C	8.8	Halliburton Light , Type Unknown		60	3.16	11.0		
							Halliburton Premium , Type Unknown		210	1.36	14.8		
Prod	8.75	5.5	0 - 7517	17.0	P-110 LT&C	9.6	Unknown		640	2.31	11.0		
							Unknown		920	1.42	13.5		
ATTACHMENTS													
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES													
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN							
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER							
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP							
NAME Venessa Langmacher				TITLE Senior Permit Analyst				PHONE 303 312-8172					
SIGNATURE				DATE 05/15/2012				EMAIL vlangmacher@billbarrettcorp.com					
API NUMBER ASSIGNED 43047526750000				APPROVAL  Permit Manager									

BILL BARRETT CORPORATION
DRILLING PLAN

1/04/2011

16-7D-46 BTR

SW SE, 857' FSL and 1720' FEL, Section 7, T4S-R6W, USB&M (surface hole)

SE SE, 810' FSL and 810' FEL, Section 7, T4S-R6W, USB&M (bottom hole)

Duchesne County, Utah

1 - 2. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

<u>Formation</u>	<u>Depth – MD</u>	<u>Depth - TVD</u>
Lower Green River*	2,941'	2,827'
Douglas Creek	3,815'	3,662'
Black Shale	4,591'	4,437'
Castle Peak	4,881'	4,727'
Uteland Butte	5,191'	5,037'
Wasatch*	5,426'	5,272'
TD	7,517'	7,362'

*PROSPECTIVE PAY

The Wasatch and the Lower Green River are primary objectives for oil/gas.

Base of Useable Water = 1,782'

3. BOP and Pressure Containment Data

<u>Depth Intervals</u>	<u>BOP Equipment</u>
0 – 750'	No pressure control required
750' – TD	11" 5000# Ram Type BOP 11" 5000# Annular BOP
- Drilling spool to accommodate choke and kill lines;	
- Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2;	
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.	
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner.	

4. Casing Program

<u>Hole Size</u>	<u>SETTING DEPTH</u>		<u>Casing Size</u>	<u>Casing Weight</u>	<u>Casing Grade</u>	<u>Thread</u>	<u>Condition</u>
	<u>(FROM)</u>	<u>(TO)</u>					
26"	Surface	80'	16"	65#			
12 1/4"	Surface	750'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	Surface	TD	5 1/2"	17#	P-110	LT&C	New

Bill Barrett Corporation
Drilling Program
16-7D-46 BTR
Duchesne County, Utah

5. Cementing Program

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 60 sx Halliburton Light Premium with additives mixed at 11.0 ppg (yield = 3.16 ft ³ /sx) circulated to surface with 75% excess. TOC @ Surface Tail: 210 sx Halliburton Premium Plus cement with additives mixed at 14.8 ppg (yield = 1.36 ft ³ /sx), calculated hole volume with 75% excess. TOC @ 250'
5 1/2" Production Casing	Lead: 640 sx Tuned Light cement with additives mixed at 11.0 ppg (yield = 2.31 ft ³ /sx). TOC @ 250' Tail: 920 sx Halliburton Econocem cement with additives mixed at 13.5 ppg (yield = 1.42 ft ³ /sx). Top of cement to be determined by log and sample evaluation; estimated TOC @ 4,091'

6. Mud Program

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u> <u>(API filtrate)</u>	<u>Remarks</u>
0' – 80'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
80' – 750'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
750' – TD	8.6 – 9.6	42-52	20 cc or less	DAP Polymer Fluid System
Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.				

7. Testing, Logging and Core Programs

Cores	No cores are anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface). FMI & Sonic Scanner to be run at geologist's discretion.

8. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3675 psi* and maximum anticipated surface pressure equals approximately 2055 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

**Maximum surface pressure = A – (0.22 x TD)

Bill Barrett Corporation
Drilling Program
16-7D-46 BTR
Duchesne County, Utah

9. Auxiliary Equipment

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
 - b) Inside BOP or stab-in valve (available on rig floor)
 - c) Safety valve(s) and subs to fit all string connections in use
- Mud monitoring will be visually observed

10. Location and Type of Water Supply

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W water right number 43-180.

11. Drilling Schedule

Location Construction: July 2013
Spud: July 2013
Duration: 15 days drilling time
45 days completion time



Bill Barrett Corporation

LAKE CANYON & BLACK TAIL RIDGE CEMENT VOLUMES

Well Name: 16-7D-46 BTR

Surface Hole Data:

Total Depth:	750'
Top of Cement:	0'
OD of Hole:	12.250"
OD of Casing:	9.625"

Calculated Data:

Lead Volume:	137.0	ft ³
Lead Fill:	250'	
Tail Volume:	274.0	ft ³
Tail Fill:	500'	

Cement Data:

Lead Yield:	3.16	ft ³ /sk
% Excess:	75%	
Top of Lead:	0'	

Calculated # of Sacks:

# SK's Lead:	60
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Tail Yield:	1.36	ft ³ /sk
% Excess:	75%	
Top of Tail:	250'	

# SK's Tail:	210
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Production Hole Data:

Total Depth:	7,516'
Top of Cement:	250'
Top of Tail:	4,091'
OD of Hole:	8.750"
OD of Casing:	5.500"

Calculated Data:

Lead Volume:	1455.3	ft ³
Lead Fill:	3,841'	
Tail Volume:	1297.8	ft ³
Tail Fill:	3,425'	

Cement Data:

Lead Yield:	2.31	ft ³ /sk
Tail Yield:	1.42	ft ³ /sk
% Excess:	50%	

Calculated # of Sacks:

# SK's Lead:	640
# SK's Tail:	920

16-7D-46 BTR Proposed Cementing Program
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<u>Job Recommendation</u>	<u>Surface Casing</u>		
Lead Cement - (250' - 0')			
Halliburton Light Premium	Fluid Weight:	11.0	lbm/gal
5.0 lbm/sk Silicalite Compacted	Slurry Yield:	3.16	ft ³ /sk
0.25 lbm/sk Kwik Seal	Total Mixing Fluid:	19.48	Gal/sk
0.125 lbm/sk Poly-E-Flake	Top of Fluid:	0'	
2.0% Bentonite	Calculated Fill:	250'	
	Volume:	24.40	bbl
	Proposed Sacks:	60	sks
Tail Cement - (TD - 250')			
Premium Cement	Fluid Weight:	14.8	lbm/gal
2.0% Calcium Chloride	Slurry Yield:	1.36	ft ³ /sk
	Total Mixing Fluid:	6.37	Gal/sk
	Top of Fluid:	250'	
	Calculated Fill:	500'	
	Volume:	48.80	bbl
	Proposed Sacks:	210	sks

<u>Job Recommendation</u>	<u>Production Casing</u>		
Lead Cement - (4091' - 250')			
Tuned Light™ System	Fluid Weight:	11.0	lbm/gal
	Slurry Yield:	2.31	ft³/sk
	Total Mixing Fluid:	10.65	Gal/sk
	Top of Fluid:	250'	
	Calculated Fill:	3,841'	
	Volume:	259.18	bbl
	Proposed Sacks:	640	sks
Tail Cement - (7516' - 4091')			
Econocem™ System	Fluid Weight:	13.5	lbm/gal
0.125 lbm/sk Poly-E-Flake	Slurry Yield:	1.42	ft³/sk
1.0 lbm/sk Granulite TR 1/4	Total Mixing Fluid:	6.61	Gal/sk
	Top of Fluid:	4,091'	
	Calculated Fill:	3,425'	
	Volume:	231.14	bbl
	Proposed Sacks:	920	sks

T4S, R6W, U.S.B.&M.

BILL BARRETT CORPORATION

Well location, #16-7D-46 BTR, located as shown in the SW 1/4 SE 1/4 of Section 7, T4S, R6W, U.S.B.&M., Duchesne County, Utah.

BASIS OF ELEVATION

BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6097 FEET.

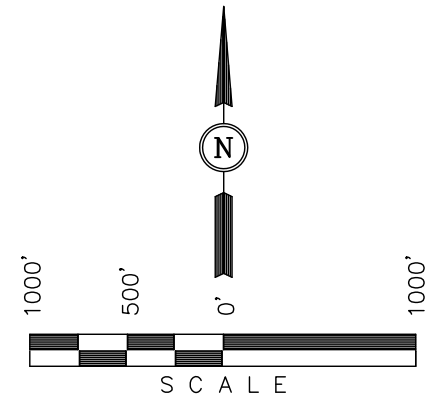
BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S86°09'14"E	913.51'

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground)



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

ROBERT L. KAY
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH
08-29-11

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 07-19-11	DATE DRAWN: 08-10-11
PARTY C.R. A.W. K.O.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE BILL BARRETT CORPORATION	

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°08'32.04" (40.142233)	LATITUDE = 40°08'32.62" (40.142394)
LONGITUDE = 110°35'56.11" (110.598919)	LONGITUDE = 110°36'07.85" (110.602181)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°08'32.19" (40.142275)	LATITUDE = 40°08'32.77" (40.142436)
LONGITUDE = 110°35'53.55" (110.598208)	LONGITUDE = 110°36'05.28" (110.601467)

1993 Alum. Cap
0.5' High, Set
Marked Stone,
Fence Corner

N89°31'19"W - 5171.77' (Meas.)

S01°07'27"E - 5340.79' (Meas.)

S89°06'06"E - 5285.12' (Meas.)

Section Corner
Re-Established by
Bearing Trees

Set
Marked
Stone

S00°05'15"W - 2650.04' (Meas.)

Section Corner
Re-Established by
Single
Proportion
Method (Not
Set on Ground)

S00°05'15"W - 2650.04' (Meas.)

Section Corner
Re-Established by
Single Proportion
Method (Not Set on
Ground)

N00°05'15"E
5300.08' (Meas.)

SW Cor. Sec. 18
Set Marked
Stone

LOT 1

LOT 2

LOT 3

LOT 4

#16-7D-46 BTR

Elev. Ungraded Ground = 5797'

1720'

L1

810'

Bottom
Hole

857'

810'

7

RECEIVED: May 15, 2012

API Well Number: 43047526750000



LEGEND:

● PROPOSED LOCATION



BILL BARRETT CORPORATION

#16-7D-46 BTR

SECTION 7, T4S, R6W, U.S.B.&M.

857' FSL 1720' FEL



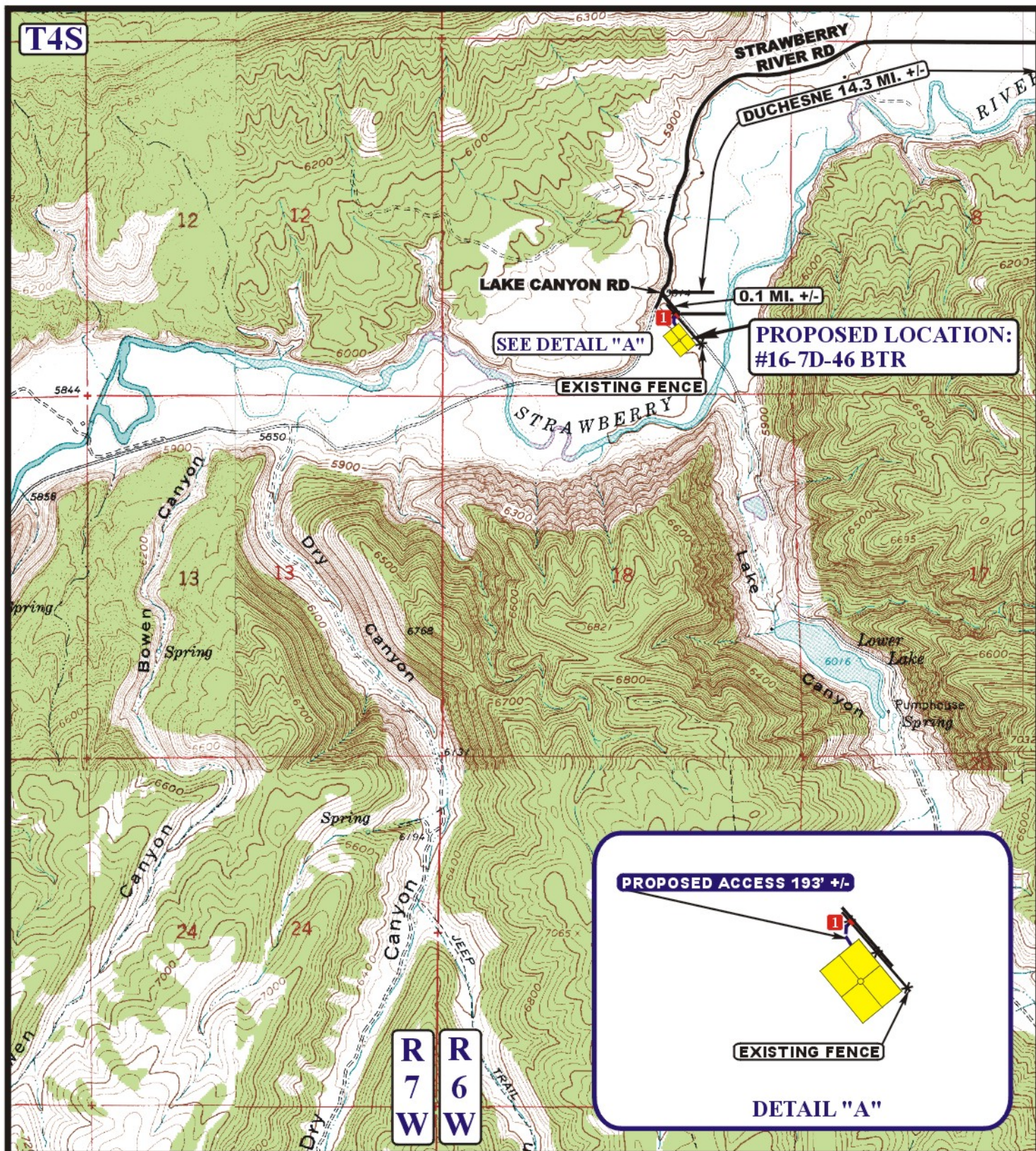
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

ACCESS ROAD
MAP

07 22 11
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: C.I. REVISED: 00-00-00





LEGEND:

- EXISTING ROAD
- - - PROPOSED ACCESS ROAD
- * * * EXISTING FENCE
- 1 INSTALL CATTLE GUARD



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BILL BARRETT CORPORATION

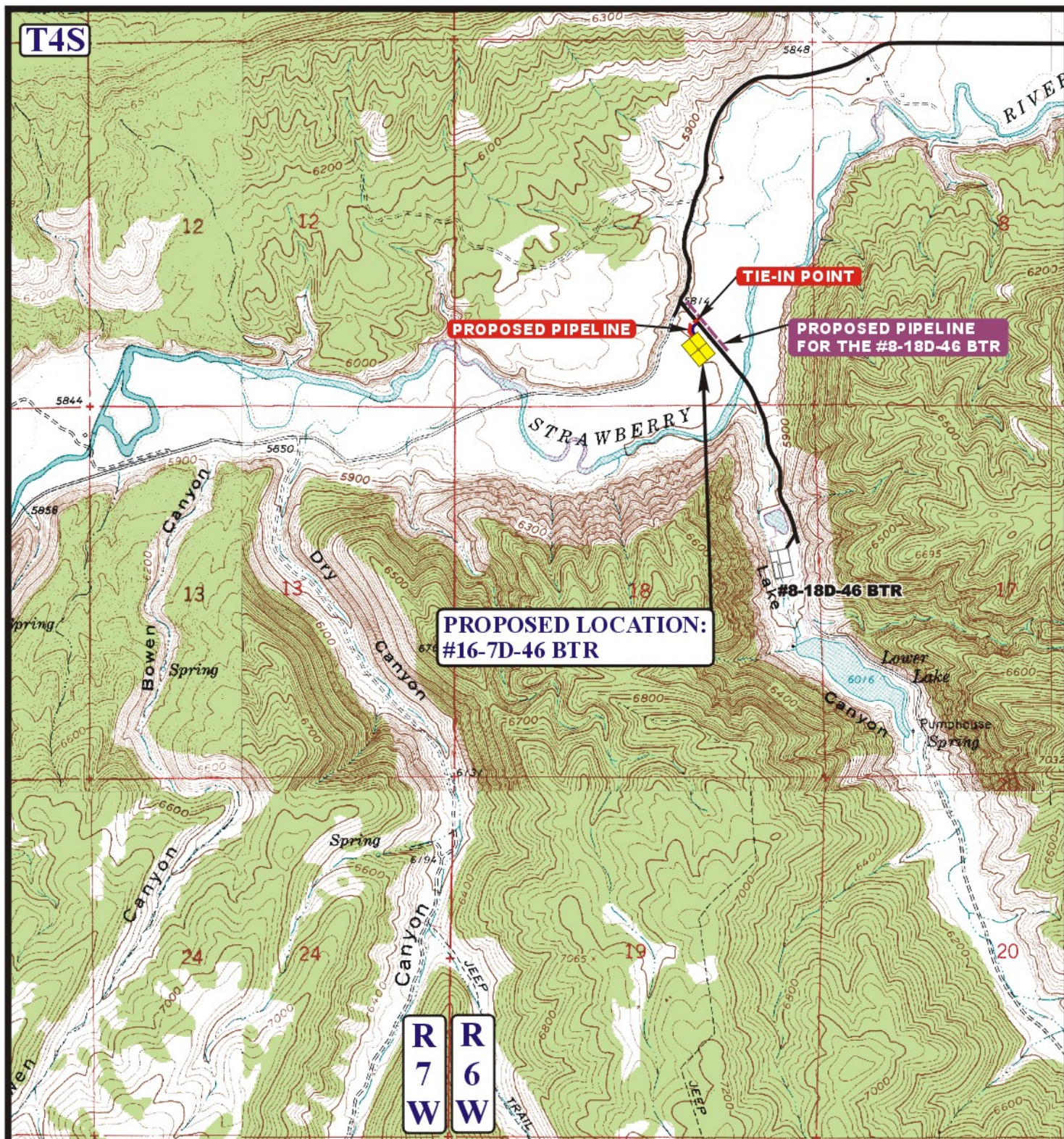
#16-7D-46 BTR
SECTION 7, T4S, R6W, U.S.B.&M.
857' FSL 1720' FEL

ACCESS ROAD
M A P

07 22 11
MONTH DAY YEAR

B
TOPO

SCALE: 1" = 2000' DRAWN BY: C.I. REVISED: 01-11-12



APPROXIMATE TOTAL PIPELINE DISTANCE = 300' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)



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BILL BARRETT CORPORATION

#16-7D-46 BTR
SECTION 7, T4S, R6W, U.S.B.&M.
857' FSL 1720' FEL

TOPOGRAPHIC
MAP

07 22 11
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: C.I. REVISED: 01-11-12



D
TOPO



Bill Barrett Corporation

SITE DETAILS: 16-7D-46 BTR
Blacktail Ridge

 Site Latitude: 40° 8' 32.770 N
 Site Longitude: 110° 36' 5.281 W

COMPANY DETAILS: BILL BARRETT CORP

 Calculation Method: Minimum Curvature
 Error System: ISCWSA
 Scan Method: Closest Approach 3D
 Error Surface: Elliptical Conic
 Warning Method: Error Ratio

 Positional Uncertainty: 0.0
 Convergence: 0.58
 Local North: True

WELL DETAILS: 16-7D-46 BTR

Ground Level: 5797.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	660189.37	2251192.47	40° 8' 32.770 N	110° 36' 5.281 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
16-7D-46 BTR 3PT MKR	4062.0	-58.6	911.1	40° 8' 32.190 N	110° 35' 53.549 W	Rectangle (Sides: L200.0 W200.0)
16-7D-46 BTR PBHL	7362.0	-58.6	911.1	40° 8' 32.190 N	110° 35' 53.549 W	Rectangle (Sides: L200.0 W200.0)

SECTION DETAILS

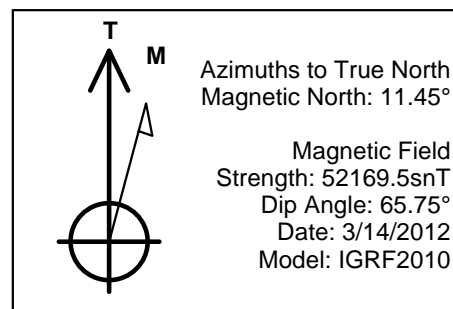
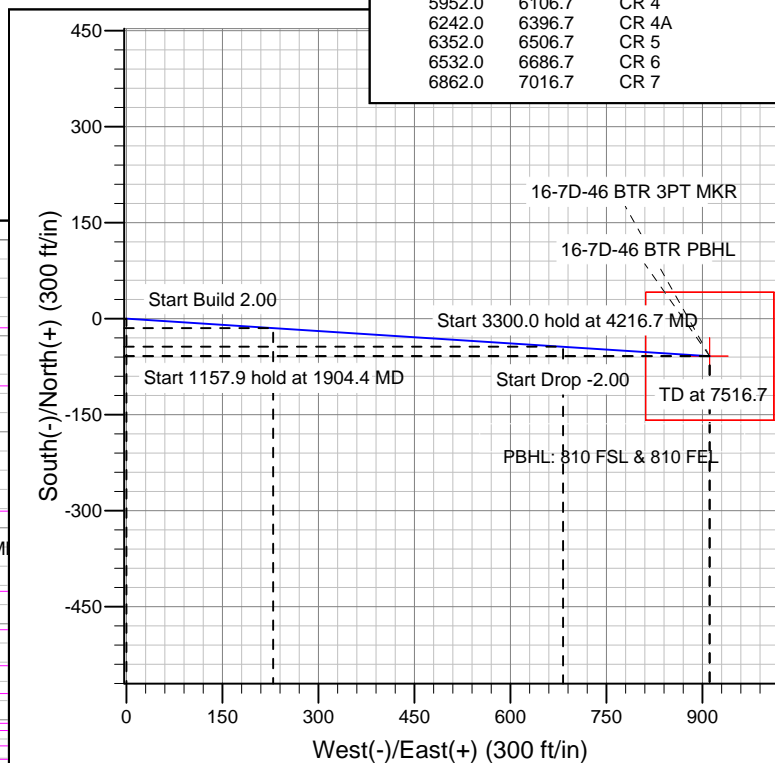
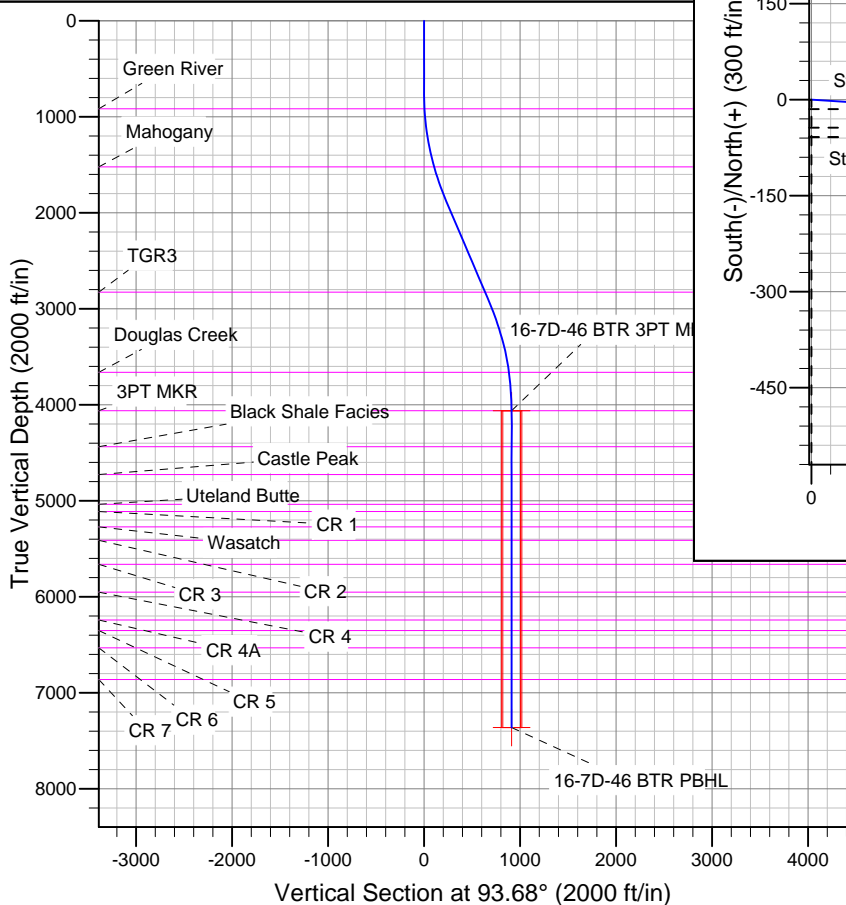
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	750.0	0.00	0.00	750.0	0.0	0.0	0.00	0.00	0.0	
3	1904.4	23.09	93.68	1873.4	-14.7	229.0	2.00	93.68	229.5	
4	3062.3	23.09	93.68	2938.6	-43.9	682.1	0.00	0.00	683.5	
5	4216.7	0.00	0.00	4062.0	-58.6	911.1	2.00	180.00	913.0	16-7D-46 BTR 3PT MKR
6	7516.7	0.00	0.00	7362.0	-58.6	911.1	0.00	0.00	913.0	16-7D-46 BTR PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
917.0	917.1	Green River
1522.0	1531.7	Mahogany
2827.0	2941.0	TGR3
3662.0	3815.4	Douglas Creek
4062.0	4216.7	3PT MKR
4437.0	4591.7	Black Shale Facies
4727.0	4881.7	Castle Peak
5037.0	5191.7	Uteland Butte
5112.0	5266.7	CR 1
5272.0	5426.7	Wasatch
5412.0	5566.7	CR 2
5662.0	5816.7	CR 3
5952.0	6106.7	CR 4
6242.0	6396.7	CR 4A
6352.0	6506.7	CR 5
6532.0	6686.7	CR 6
6862.0	7016.7	CR 7

CASING DETAILS

No casing data is available



BILL BARRETT CORP

DUCHESNE COUNTY, UT (NAD 27)

16-7D-46 BTR

16-7D-46 BTR

16-7D-46 BTR

Plan: Design #1

Standard Planning Report

13 April, 2012

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well 16-7D-46 BTR
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 5813.0ft (Original Well Elev)
Project:	DUCHESNE COUNTY, UT (NAD 27)	MD Reference:	KB @ 5813.0ft (Original Well Elev)
Site:	16-7D-46 BTR	North Reference:	True
Well:	16-7D-46 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	16-7D-46 BTR		
Design:	Design #1		

Project	DUCHESNE COUNTY, UT (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site		16-7D-46 BTR			
Site Position:		Northing:	660,189.37 ft	Latitude:	40° 8' 32.770 N
From:	Lat/Long	Easting:	2,251,192.47 ft	Longitude:	110° 36' 5.281 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	16-7D-46 BTR					
Well Position	+N/-S	0.0 ft	Northing:	660,189.37 ft	Latitude:	40° 8' 32.770 N
	+E/-W	0.0 ft	Easting:	2,251,192.47 ft	Longitude:	110° 36' 5.281 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,797.0 ft

Wellbore	16-7D-46 BTR				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/14/2012	11.45	65.75	52,169

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	93.68

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
750.0	0.00	0.00	750.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,904.4	23.09	93.68	1,873.4	-14.7	229.0	2.00	2.00	0.00	93.68	
3,062.3	23.09	93.68	2,938.6	-43.9	682.1	0.00	0.00	0.00	0.00	
4,216.7	0.00	0.00	4,062.0	-58.6	911.1	2.00	-2.00	0.00	180.00	16-7D-46 BTR 3PT M
7,516.7	0.00	0.00	7,362.0	-58.6	911.1	0.00	0.00	0.00	0.00	16-7D-46 BTR PBHL

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well 16-7D-46 BTR
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 5813.0ft (Original Well Elev)
Project:	DUCHESNE COUNTY, UT (NAD 27)	MD Reference:	KB @ 5813.0ft (Original Well Elev)
Site:	16-7D-46 BTR	North Reference:	True
Well:	16-7D-46 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	16-7D-46 BTR		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	1.00	93.68	800.0	0.0	0.4	0.4	2.00	2.00	0.00
900.0	3.00	93.68	899.9	-0.3	3.9	3.9	2.00	2.00	0.00
917.1	3.34	93.68	917.0	-0.3	4.9	4.9	2.00	2.00	0.00
Green River									
1,000.0	5.00	93.68	999.7	-0.7	10.9	10.9	2.00	2.00	0.00
1,100.0	7.00	93.68	1,099.1	-1.4	21.3	21.4	2.00	2.00	0.00
1,200.0	9.00	93.68	1,198.2	-2.3	35.2	35.3	2.00	2.00	0.00
1,300.0	11.00	93.68	1,296.6	-3.4	52.5	52.6	2.00	2.00	0.00
1,400.0	13.00	93.68	1,394.4	-4.7	73.3	73.4	2.00	2.00	0.00
1,500.0	15.00	93.68	1,491.5	-6.3	97.4	97.6	2.00	2.00	0.00
1,531.7	15.63	93.68	1,522.0	-6.8	105.8	106.0	2.00	2.00	0.00
Mahogany									
1,600.0	17.00	93.68	1,587.6	-8.0	124.9	125.2	2.00	2.00	0.00
1,700.0	19.00	93.68	1,682.7	-10.0	155.8	156.1	2.00	2.00	0.00
1,800.0	21.00	93.68	1,776.6	-12.2	189.9	190.3	2.00	2.00	0.00
1,900.0	23.00	93.68	1,869.4	-14.6	227.3	227.7	2.00	2.00	0.00
1,904.4	23.09	93.68	1,873.4	-14.7	229.0	229.5	2.00	2.00	0.00
2,000.0	23.09	93.68	1,961.4	-17.1	266.4	266.9	0.00	0.00	0.00
2,100.0	23.09	93.68	2,053.3	-19.7	305.5	306.2	0.00	0.00	0.00
2,200.0	23.09	93.68	2,145.3	-22.2	344.7	345.4	0.00	0.00	0.00
2,300.0	23.09	93.68	2,237.3	-24.7	383.8	384.6	0.00	0.00	0.00
2,400.0	23.09	93.68	2,329.3	-27.2	422.9	423.8	0.00	0.00	0.00
2,500.0	23.09	93.68	2,421.3	-29.7	462.1	463.0	0.00	0.00	0.00
2,600.0	23.09	93.68	2,513.3	-32.2	501.2	502.2	0.00	0.00	0.00
2,700.0	23.09	93.68	2,605.3	-34.8	540.3	541.4	0.00	0.00	0.00
2,800.0	23.09	93.68	2,697.3	-37.3	579.5	580.7	0.00	0.00	0.00
2,900.0	23.09	93.68	2,789.3	-39.8	618.6	619.9	0.00	0.00	0.00
2,941.0	23.09	93.68	2,827.0	-40.8	634.6	636.0	0.00	0.00	0.00
TGR3									
3,000.0	23.09	93.68	2,881.3	-42.3	657.7	659.1	0.00	0.00	0.00
3,062.3	23.09	93.68	2,938.6	-43.9	682.1	683.5	0.00	0.00	0.00
3,100.0	22.33	93.68	2,973.3	-44.8	696.6	698.1	2.00	-2.00	0.00
3,200.0	20.33	93.68	3,066.5	-47.2	732.9	734.5	2.00	-2.00	0.00
3,300.0	18.33	93.68	3,160.8	-49.3	766.0	767.6	2.00	-2.00	0.00
3,400.0	16.33	93.68	3,256.3	-51.2	795.7	797.4	2.00	-2.00	0.00
3,500.0	14.33	93.68	3,352.7	-52.9	822.1	823.8	2.00	-2.00	0.00
3,600.0	12.33	93.68	3,450.0	-54.4	845.1	846.9	2.00	-2.00	0.00
3,700.0	10.33	93.68	3,548.1	-55.6	864.7	866.5	2.00	-2.00	0.00
3,800.0	8.33	93.68	3,646.7	-56.7	880.9	882.7	2.00	-2.00	0.00
3,815.4	8.03	93.68	3,662.0	-56.8	883.1	884.9	2.00	-2.00	0.00
Douglas Creek									
3,900.0	6.33	93.68	3,745.9	-57.5	893.6	895.5	2.00	-2.00	0.00
4,000.0	4.33	93.68	3,845.5	-58.1	902.9	904.8	2.00	-2.00	0.00
4,100.0	2.33	93.68	3,945.3	-58.5	908.7	910.6	2.00	-2.00	0.00
4,200.0	0.33	93.68	4,045.3	-58.6	911.1	912.9	2.00	-2.00	0.00

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well 16-7D-46 BTR
Company:	BILL BARRETT CORP	TVD Reference:	KB @ 5813.0ft (Original Well Elev)
Project:	DUCHESNE COUNTY, UT (NAD 27)	MD Reference:	KB @ 5813.0ft (Original Well Elev)
Site:	16-7D-46 BTR	North Reference:	True
Well:	16-7D-46 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	16-7D-46 BTR		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,216.7	0.00	0.00	4,062.0	-58.6	911.1	913.0	2.00	-2.00	0.00
3PT MKR									
4,300.0	0.00	0.00	4,145.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,245.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,345.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,591.7	0.00	0.00	4,437.0	-58.6	911.1	913.0	0.00	0.00	0.00
Black Shale Facies									
4,600.0	0.00	0.00	4,445.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,545.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,645.3	-58.6	911.1	913.0	0.00	0.00	0.00
4,881.7	0.00	0.00	4,727.0	-58.6	911.1	913.0	0.00	0.00	0.00
Castle Peak									
4,900.0	0.00	0.00	4,745.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,000.0	0.00	0.00	4,845.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,100.0	0.00	0.00	4,945.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,191.7	0.00	0.00	5,037.0	-58.6	911.1	913.0	0.00	0.00	0.00
Uteland Butte									
5,200.0	0.00	0.00	5,045.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,266.7	0.00	0.00	5,112.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 1									
5,300.0	0.00	0.00	5,145.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,245.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,426.7	0.00	0.00	5,272.0	-58.6	911.1	913.0	0.00	0.00	0.00
Wasatch									
5,500.0	0.00	0.00	5,345.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,566.7	0.00	0.00	5,412.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 2									
5,600.0	0.00	0.00	5,445.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,545.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,645.3	-58.6	911.1	913.0	0.00	0.00	0.00
5,816.7	0.00	0.00	5,662.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 3									
5,900.0	0.00	0.00	5,745.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,845.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,100.0	0.00	0.00	5,945.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,106.7	0.00	0.00	5,952.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 4									
6,200.0	0.00	0.00	6,045.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,145.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,396.7	0.00	0.00	6,242.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 4A									
6,400.0	0.00	0.00	6,245.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,345.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,506.7	0.00	0.00	6,352.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 5									
6,600.0	0.00	0.00	6,445.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,686.7	0.00	0.00	6,532.0	-58.6	911.1	913.0	0.00	0.00	0.00
CR 6									
6,700.0	0.00	0.00	6,545.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,645.3	-58.6	911.1	913.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,745.3	-58.6	911.1	913.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,845.3	-58.6	911.1	913.0	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

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Project:	DUCHESNE COUNTY, UT (NAD 27)	MD Reference:	KB @ 5813.0ft (Original Well Elev)
Site:	16-7D-46 BTR	North Reference:	True
Well:	16-7D-46 BTR	Survey Calculation Method:	Minimum Curvature
Wellbore:	16-7D-46 BTR		
Design:	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,016.7	0.00	0.00	6,862.0	-58.6	911.1	913.0	0.00	0.00	0.00	
CR 7										
7,100.0	0.00	0.00	6,945.3	-58.6	911.1	913.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,045.3	-58.6	911.1	913.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,145.3	-58.6	911.1	913.0	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,245.3	-58.6	911.1	913.0	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,345.3	-58.6	911.1	913.0	0.00	0.00	0.00	
7,516.7	0.00	0.00	7,362.0	-58.6	911.1	913.0	0.00	0.00	0.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
917.1	917.0	Green River		0.00		
1,531.7	1,522.0	Mahogany		0.00		
2,941.0	2,827.0	TGR3		0.00		
3,815.4	3,662.0	Douglas Creek		0.00		
4,216.7	4,062.0	3PT MKR		0.00		
4,591.7	4,437.0	Black Shale Facies		0.00		
4,881.7	4,727.0	Castle Peak		0.00		
5,191.7	5,037.0	Uteland Butte		0.00		
5,266.7	5,112.0	CR 1		0.00		
5,426.7	5,272.0	Wasatch		0.00		
5,566.7	5,412.0	CR 2		0.00		
5,816.7	5,662.0	CR 3		0.00		
6,106.7	5,952.0	CR 4		0.00		
6,396.7	6,242.0	CR 4A		0.00		
6,506.7	6,352.0	CR 5		0.00		
6,686.7	6,532.0	CR 6		0.00		
7,016.7	6,862.0	CR 7		0.00		

SURFACE USE PLAN

BILL BARRETT CORPORATION

16-7D-46 BTR Well Pad

SW SE, 857' FSL and 1720' FEL, Section 7, T4S-R6W, USB&M (surface hole)

SE SE, 810' FSL and 810' FEL, Section 7, T4S-R6W, USB&M (bottom hole)

Duchesne County, Utah

The onsite inspection for this pad occurred on January 10, 2012. This is a new pad with one proposed well. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- Closed Loop System Required
- No archeological monitor proposed
- Fence pad to exclude from the pasture area
- Covert Green paint color
- Gravel surface road and pad
- Re-route irrigation ditch around pad (crossing pad from west to east, near pit corner C)

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

- a. The proposed well site is located approximately 14.4 miles southwest of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The existing State Highway 40 would be utilized for 8.3 miles to the existing Strawberry River Road that would be utilized for 6.0 miles to the existing Lake Canyon Road that would be utilized for 0.1 miles and provides access to the planned new access road.
- c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

- e. The use of roads under State and Duchesne County Road Department maintenance are necessary to access the project area with no improvements proposed. No encroachment or pipeline crossing permit are required
- f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

- a. Approximately 193 feet of new access road trending south is planned from the existing Lake Canyon Road (see Topographic Map B).
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.
- e. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

- h. Turnouts are not proposed.
 - i. No culverts or low-water crossings are anticipated. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.
 - j. One cattleguard is proposed as shown on Map B. No gates are anticipated at this time.
 - k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
 - l. All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition – Revised 2007.
 - m. The operator would be responsible for all maintenance needs of the new access road.
3. Location of Existing Wells (see One-Mile Radius Map):
- a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:
 - i. water wells none
 - ii. injection wells none
 - iii. disposal wells none
 - iv. drilling wells two
 - v. temp shut-in wells none
 - vi. producing wells two
 - vii. abandoned wells one

4. Location of Production Facilities

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 300 feet of pipeline corridor (see Topographic Map C) containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed trending north to the proposed pipeline corridor for the 8-18D-46 BTR. Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC wells. The pipeline crosses entirely Ute Tribe surface.
- g. The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.
- h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- i. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the re-establishment of the native plant community.
- j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Covert Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation.

Bill Barrett Corporation
 Surface Use Plan
 16-7D-46 BTR
 Duchesne County, UT

Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- l. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. Location and Type of Water Supply:

- a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No. and Application or Change No.	Applicant	Allocation	Date	Point of Diversion	Source
43-180	Duchesne City Water Service District	5 cfs	8/13/2004	Knight Diversion Dam	Duchesne River
43-1202, Change a13837	Myton City	5.49 cfr and 3967 acre feet	3/21/1986	Knight Diversion Dam	Duchesne River
43-10444, Appln A57477	Duchesne County Upper Country Water	2 cfs	1994	Ditch at Source	Cow Canyon Spring
43-10446, Appln F57432	Duchesne County Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273, Appln A17462	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43-1273, Appln t36590	J.J.N.P. Company	4 cfs	6/03/2010	Strawberry River	Strawberry River
43-2505, Appln t37379	McKinnon Ranch Properties, LC	1.3 cfs	4/28/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415, Change A17215a	Peatross Ranch, LLC	1.89 cfs	09/2011	Dugout Pond	Strawberry River

- b. No new water well is proposed with this application.
- c. Should additional water sources be pursued they would be properly permitted through the State of Utah – Division of Water Rights.

Bill Barrett Corporation
 Surface Use Plan
 16-7D-46 BTR
 Duchesne County, UT

- d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. There will be no reserve pit.
- c. To deter livestock from entering the cuttings area, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.
- e. Drill cuttings would be contained in the cuttings storage area.
- f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the state-approved disposal facilities below:

Disposal Facilities
1. RNI Industries, Inc. – Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
2. Pro Water LLC – Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W
3. RN Industries, Inc. – Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
4. Water Disposal, Inc. – Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W
5. Unified Water Pits – Sec. 31, T2S-R4W
6. Iowa Tank Line Pits – 8500 BLM Fence Road, Pleasant Valley
7. Western Water Solutions – Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011

- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO₂ gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.
- l. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

- m. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

8. Ancillary Facilities:

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.
- c. A surface powerline corridor 301 feet in length is proposed for installation by third-party installer within a 150 foot wide powerline corridor. See 12.d below for disturbance estimates.

9. Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 305 feet. See section 12.d below for disturbance estimates.
- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.
- f. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- g. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- h. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

- i. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- j. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.
- e. The portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours. Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the Ute Tribe specified seed mix.
- f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the Ute Tribe prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

11. Surface and Mineral Ownership:

- a. Surface ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.
- b. Mineral ownership – Ute Indian Tribe - 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 11-281 dated 09/24/2011.
- b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
 - No dogs or firearms within the Project Area.
 - No littering within the Project Area.
 - Smoking within the Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders.
 - Campfires or uncontained fires of any kind would be prohibited.
 - Portable generators used in the Project Area would have spark arrestors.
- d. Disturbance estimates:

Approximate Acreage Disturbances

Well Pad		3.268	acres
Access	193 feet	0.132	acres
Pipeline	300 feet	0.206	acres
Powerline	301 feet	1.036	acres

Total 4.642 acres

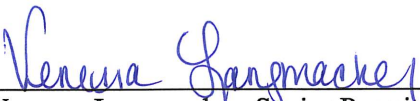
Bill Barrett Corporation
Surface Use Plan
16-7D-46 BTR
Duchesne County, UT

OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

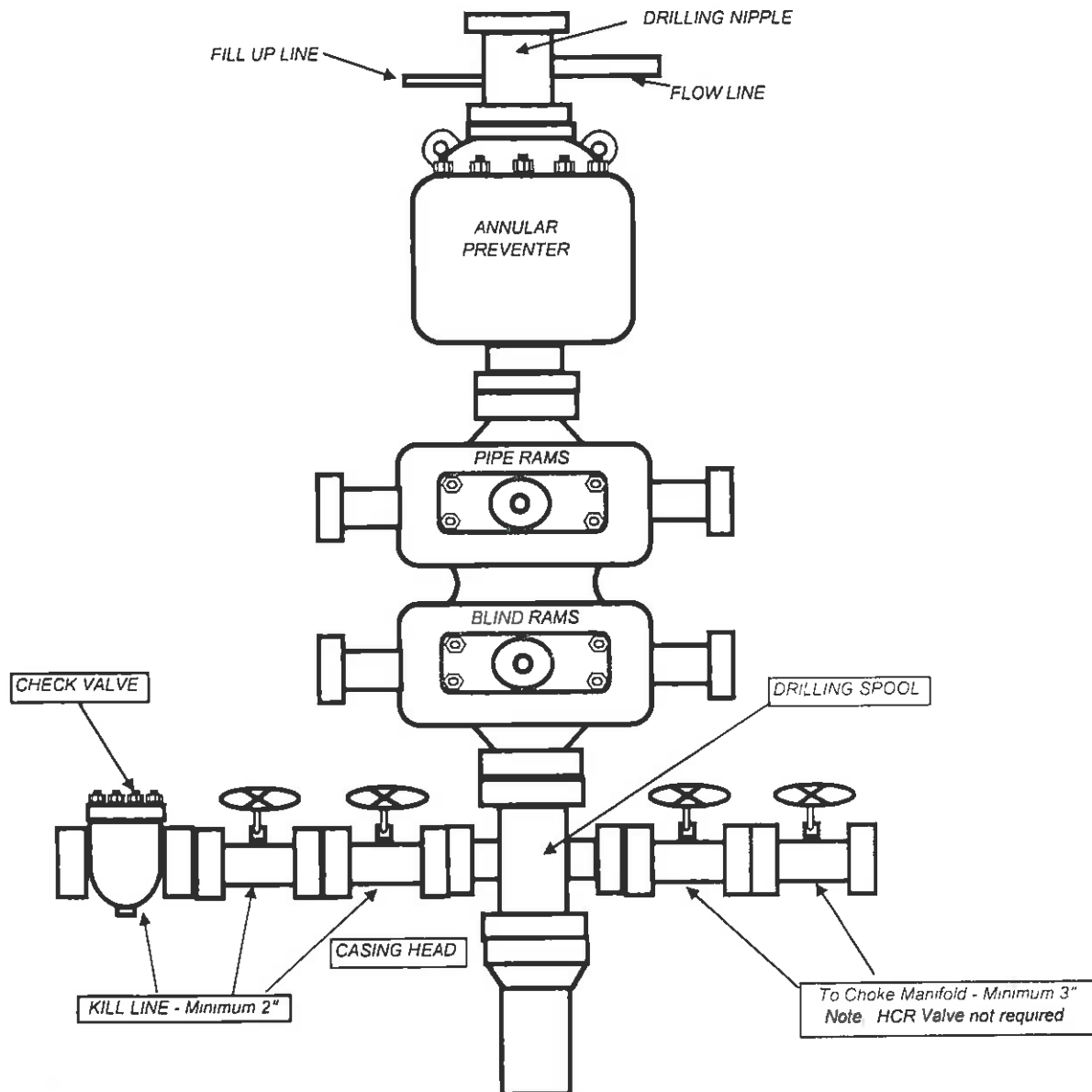
Executed this	<u>15th</u> day of <u>May</u> 2012
Name:	Venessa Langmacher
Position Title:	Senior Permit Analyst
Address:	1099 18 th Street, Suite 2300, Denver, CO 80202
Telephone:	303-312-8172
E-mail:	vlangmacher@billbarrettcorp.com
Field Representative	Kary Eldredge / Bill Barrett Corporation
Address:	1820 W. Highway 40, Roosevelt, UT 84066
Telephone:	435-725-3515 (office); 435-724-6789 (mobile)
E-mail:	keldredge@billbarrettcorp.com



Venessa Langmacher, Senior Permit Analyst

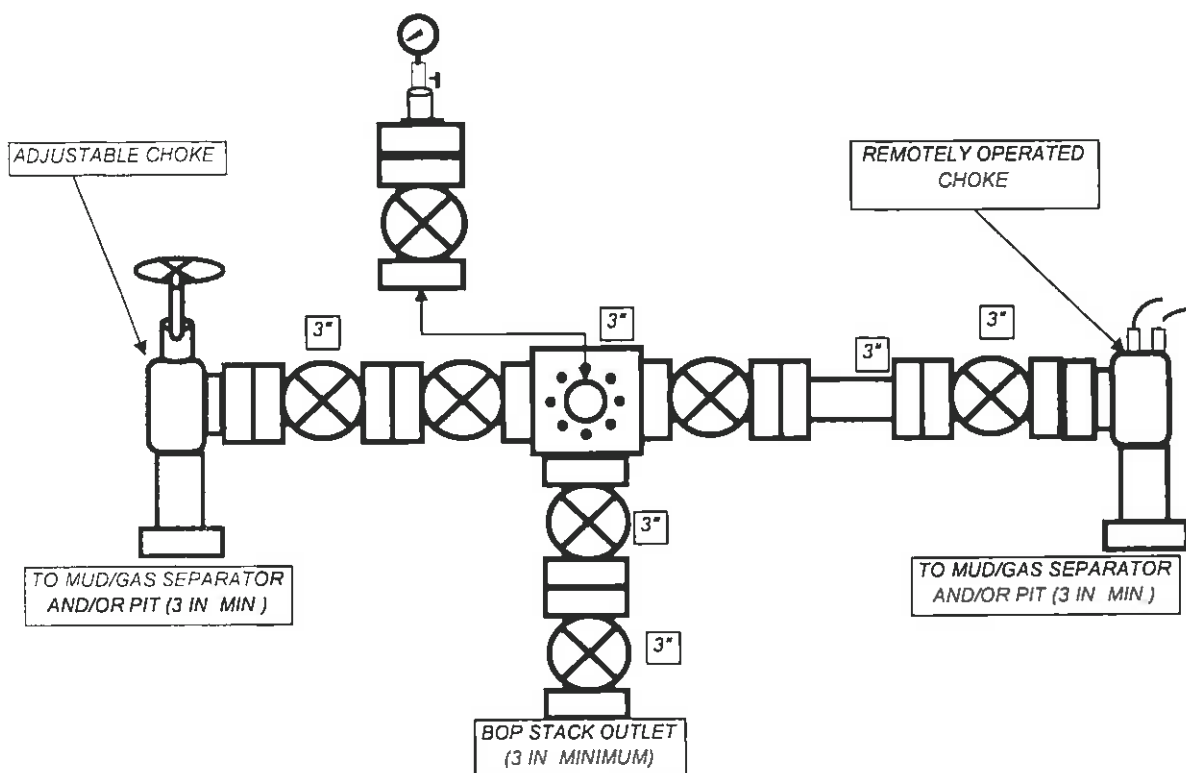
BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





May 15, 2012

Ms. Diana Mason – Petroleum Technician
State of Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11
Blacktail Ridge Area #16-7D-46 BTR Well
Surface: 857' FSL & 1720' FEL, SWSE, 7-T4S-R6W, USM
Bottom Hole: 810' FSL & 810' FEL, SESE, 7-T4S-R6W, USM
Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Blacktail Ridge Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Ute Energy, LLC owns a right to participate in this well.
- BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Ute Energy, LLC, we own 100% of the working interest in these lands.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

Sincerely,

David Watts
Landman

1099 18TH STREET
SUITE 2300
DENVER, CO 80202
P 303.293.9100
F 303.291.0420

BILL BARRETT CORPORATION

LOCATION LAYOUT FOR

#16-7D-46 BTR
SECTION 7, T4S, R6W, U.S.B.&M.
857' FSL 1720' FEL

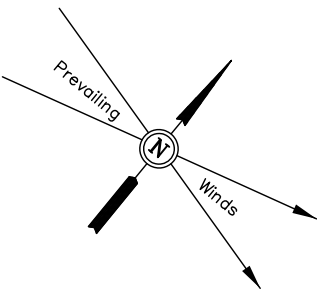
FIGURE #1

SCALE: 1" = 60'

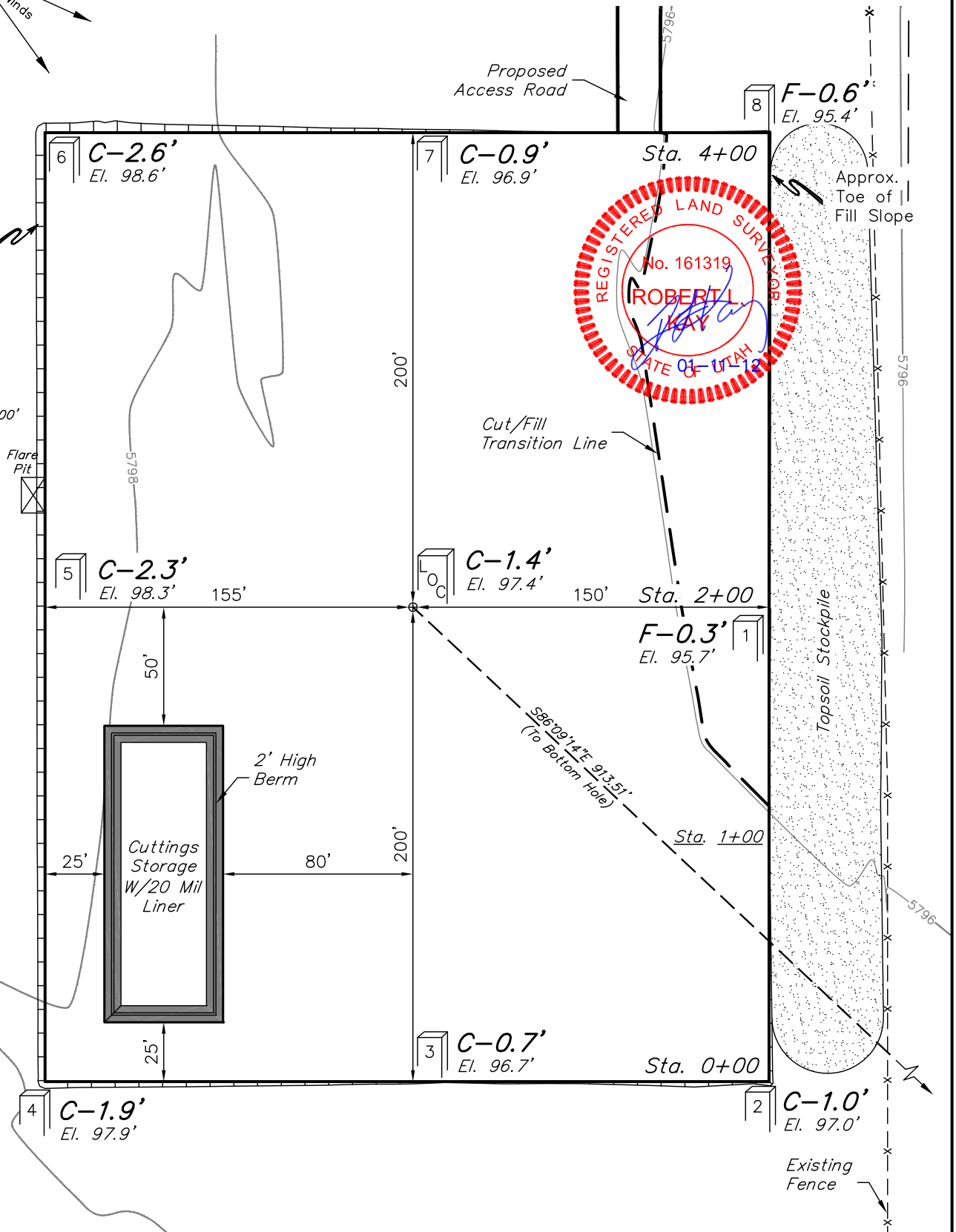
DATE: 08-10-11

DRAWN BY: K.O.

REVISED: 01-11-12 B.L.B.



NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.



Elev. Ungraded Ground At Loc. Stake = 5797.4'
FINISHED GRADE ELEV. AT LOC. STAKE = 5796.0'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: May 15, 2012

BILL BARRETT CORPORATION

TYPICAL CROSS SECTIONS FOR

#16-7D-46 BTR

SECTION 7, T4S, R6W, U.S.B.&M.

857' FSL 1720' FEL

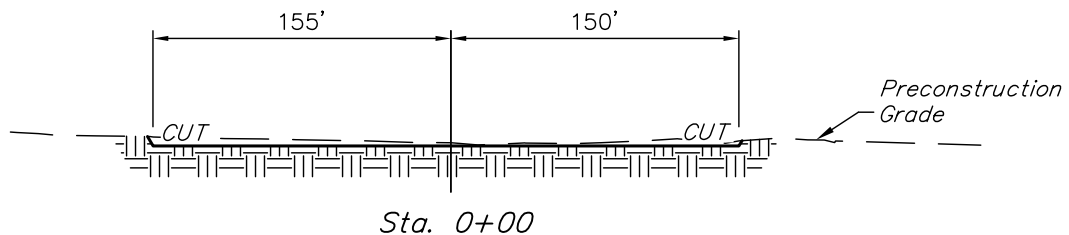
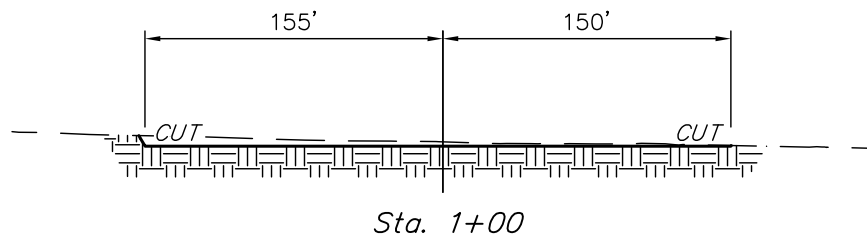
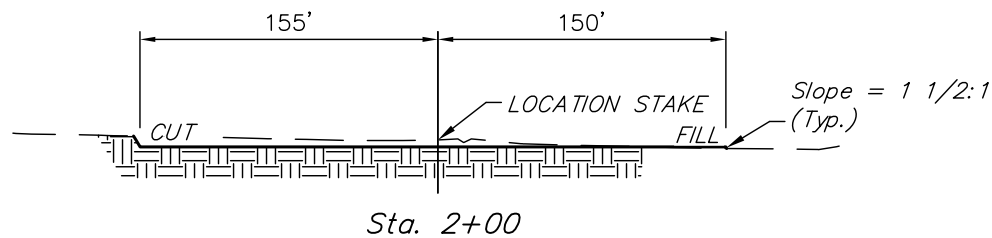
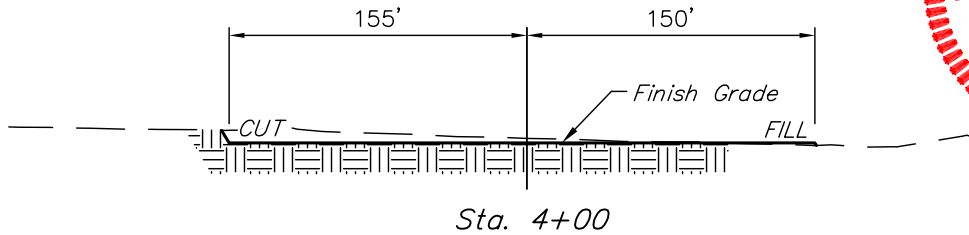
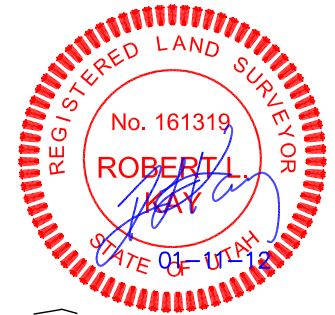
FIGURE #2

X-Section
Scale
1" = 40'
1" = 100'

DATE: 08-10-11

DRAWN BY: K.O.

REVISED: 01-11-12 B.L.B.



NOTE:

Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES

(12") Topsoil Stripping = 4,620 Cu. Yds.
Remaining Location = 1,570 Cu. Yds.
TOTAL CUT = 6,190 CU.YDS.
FILL = 1,570 CU.YDS.

EXCESS MATERIAL = 4,620 Cu. Yds.
Topsoil = 4,620 Cu. Yds.
EXCESS UNBALANCE = 0 Cu. Yds.
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: May 15, 2012

BILL BARRETT CORPORATION

TYPICAL RIG LAYOUT FOR

#16-7D-46 BTR
SECTION 7, T4S, R6W, U.S.B.&M.
857' FSL 1720' FEL

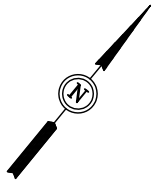
FIGURE #3

SCALE: 1" = 60'

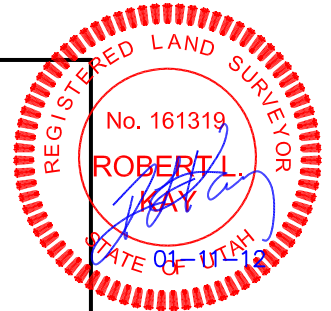
DATE: 08-10-11

DRAWN BY: K.O.

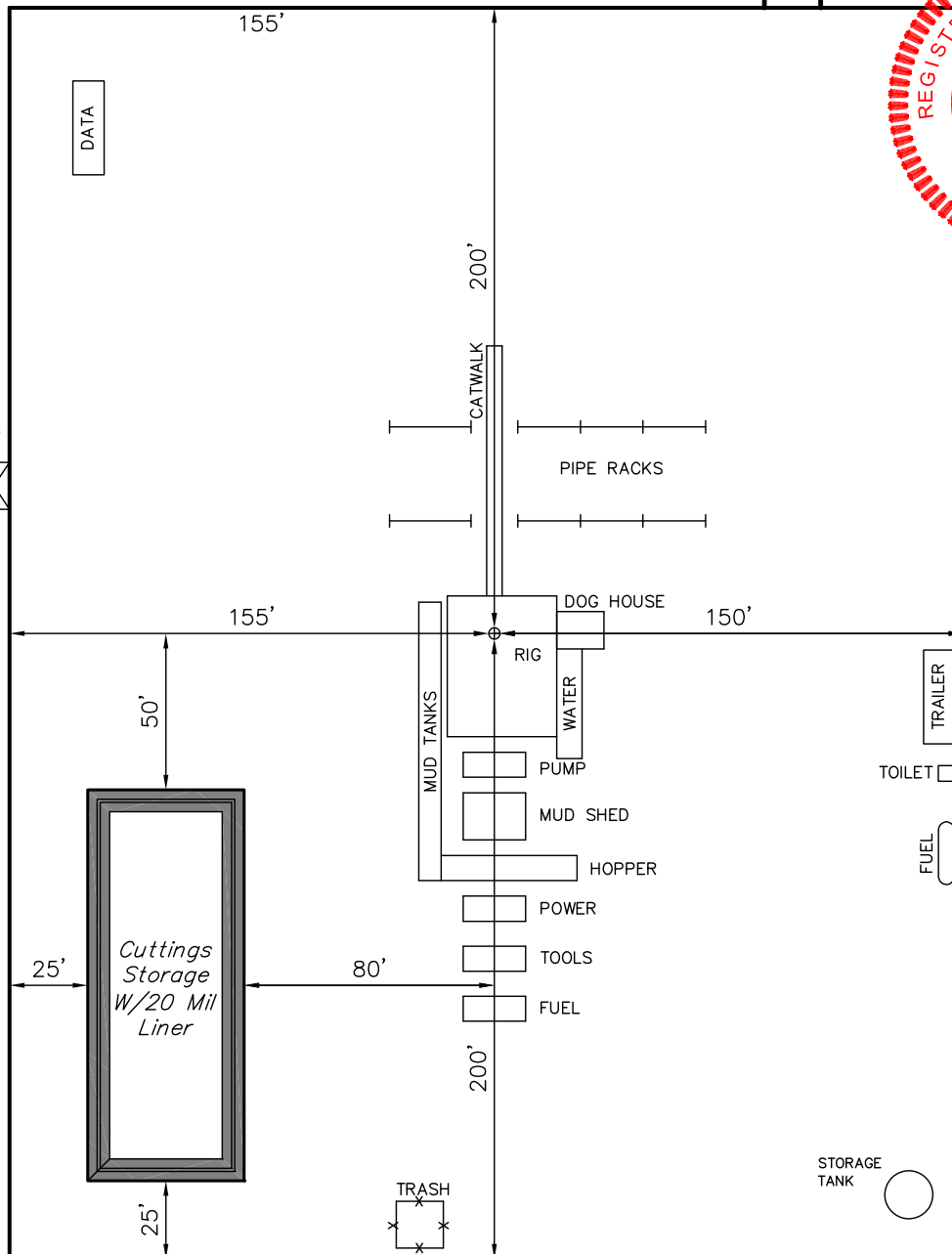
REVISED: 01-11-12 B.L.B.



Proposed
Access Road



NOTE:
Flare Pit is to be
located a min. of 100'
from the Well Head.



BILL BARRETT CORPORATION**INTERIM RECLAMATION PLAN FOR**

#16-7D-46 BTR

SECTION 7, T4S, R6W, U.S.B.&M.

857' FSL 1720' FEL

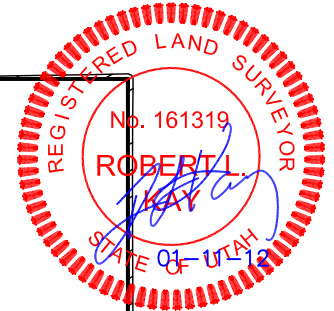
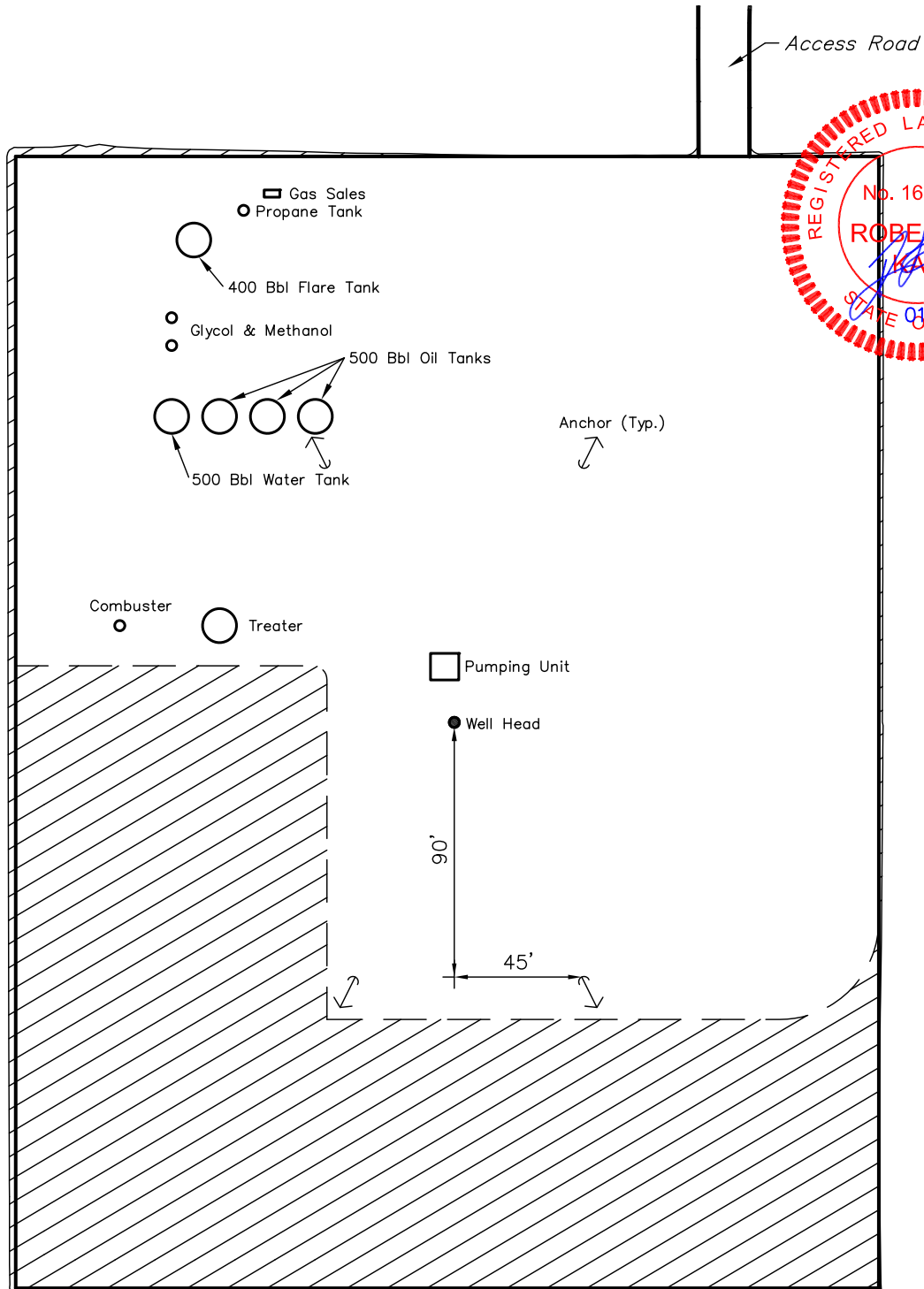
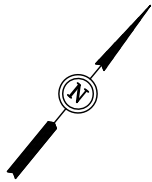
FIGURE #4

SCALE: 1" = 60'

DATE: 08-10-11

DRAWN BY: K.O.

REVISED: 01-11-12 B.L.B.



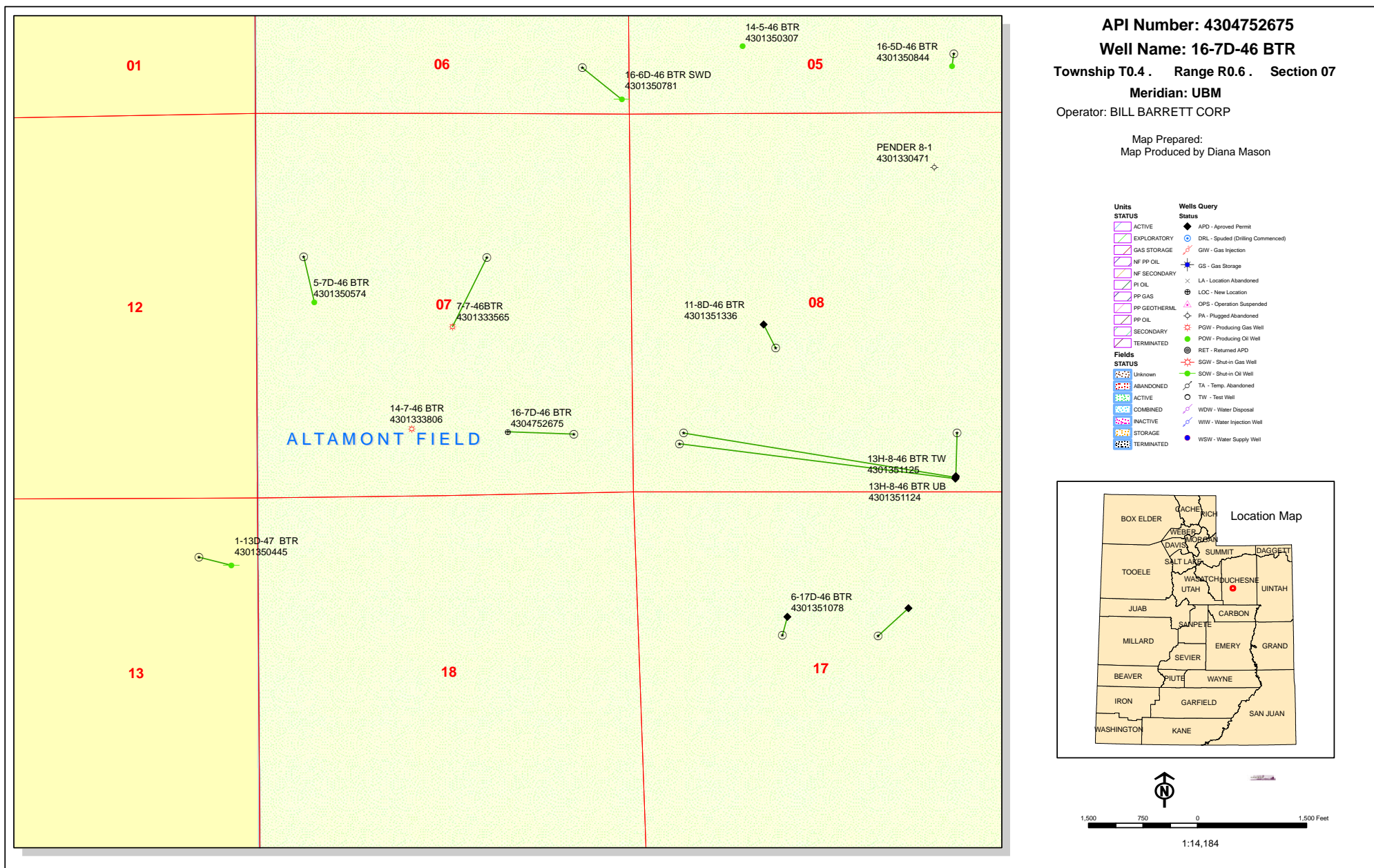
INTERIM RECLAMATION

APPROXIMATE ACREAGES
 UN-RECLAIMED = ± 1.808 ACRES

UINTAH ENGINEERING & LAND SURVEYING

85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: May 15, 2012



WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/15/2012

API NO. ASSIGNED: 43047526750000

WELL NAME: 16-7D-46 BTR

OPERATOR: BILL BARRETT CORP (N2165)

PHONE NUMBER: 303 312-8172

CONTACT: Venessa Langmacher

PROPOSED LOCATION: SWSE 07 040S 060W

Permit Tech Review: ☒

SURFACE: 0857 FSL 1720 FEL

Engineering Review: ☐

BOTTOM: 0810 FSL 0810 FEL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 40.14266

LONGITUDE: -110.60244

UTM SURF EASTINGS: 533865.00

NORTHINGS: 4443667.00

FIELD NAME: ALTAMONT

LEASE TYPE: 2 - Indian

LEASE NUMBER: 1420H625671

PROPOSED PRODUCING FORMATION(S): GREEN RIVER-WASATCH

SURFACE OWNER: 2 - Indian

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: INDIAN - LPM8874725☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 43-180☐ RDCC Review:☐ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

LOCATION AND SITING:

☐ R649-2-3.

Unit:

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 139-84

Effective Date: 12/31/2008

Siting: 660' Fr Drl U Bdry & 1320' Fr Other Wells

☒ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason
15 - Directional - dmason

RECEIVED: May 16, 2012



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: 16-7D-46 BTR
API Well Number: 43047526750000
Lease Number: 1420H625671
Surface Owner: INDIAN
Approval Date: 5/16/2012

Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-84. The expected producing formation or pool is the GREEN RIVER-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil &

Gas website
at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "J. Rogers", written over a horizontal line.

For John Rogers
Associate Director, Oil & Gas



GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 1, 2012

Venessa Langmacher
Bill Barrett Corp.
1099 18th Street Ste. 2300
Denver, CO 80202

Re: APD Rescinded – 16-7D-46, Sec. 7, T. 4S, R. 6W
Uintah County, Utah API No. 43-047-52675

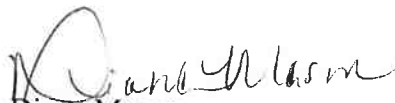
Dear Ms. Langmacher:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on May 16, 2012. This APD was sent in under the wrong County name as was given a wrong API number. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective November 1, 2012.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,


Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal